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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,021	10/12/2001	Yutaka Morikawa	081848-0183	7597

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FOLEY AND LARDNER
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EXAMINER	
TRINH, TAN H	

ART UNIT	PAPER NUMBER
2684	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/975,021	YUTAKA MORIKAWA	
	Examiner	Art Unit	
	TAN TRINH	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 October 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 May 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *see attach. sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

IDS (TPO-1449)The information disclosure statement filed on 11-14-2001, 7-10-2003, 9-15-2003 and 8-23-2004 has been received and placed of record in the file.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed on 11-14-2001, 7-10-2003, 9-15-2003 and 8-23-2004 has been received and placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Pasternak (U.S. Patent No. 5,936,949).

Regarding claim 1, Pasternak teaches a point-to-multipoint wireless access system (see fig. 1) comprising a wireless base station (see fig. 1, wireless base station 100), a plurality of wireless subscriber's terminals (see fig. 1, wireless subscriber's terminals 102-103), a plurality of down-link channels for transmitting data from the wireless base station to respective the wireless subscriber's terminals (see fig. 1, col. 2, lines 7-16), and a plurality of up-link channels for transmitting data from respective the wireless subscriber's terminal to the wireless base station (see fig. 1, col. 2, lines 7-27 and lines 43-65), wherein the down-link channels use a first wireless band and the up-link channels use a second wireless band (see figs. 1-3, col. 5, line 39-col. 6, line 9).

Regarding claim 2, Pasternak teaches wherein the wireless base station is connected to the internet through a communication network (see col. 1, lines 16-18), each of the wireless subscriber's terminals is connected to a user's terminal through a user's Ethernet (see col. 9, line 54-col. 10, line 3), and the first wireless band is higher than the second wireless band (see figs. 1-3, col. 5, line 39-col. 6, line 9).

Regarding claim 3, Pasternak teaches wherein the wireless base station is connected to the internet through a communication network (see col. 1, lines 16-18), at least one of the wireless subscriber's terminals is connected to a user server through an Ethernet (see col. 9, line 54-col. 10, line 3), and the first wireless band is lower than the second wireless band (see col. 6, lines 2-3).

Regarding claim 4, Pasternak teaches wherein the wireless base station has a gateway function (see fig. 2, ATM Switch and ISDN Switch, col. 5, lines 50-61), and each of the subscriber's terminals is a wireless module connected to a data terminal (see fig. 2, wireless module (Subscriber radio Unit (SRU) 202) connected 203 to Subscriber Access system (SAS) 204 and data terminal (End-user), col. 5, lines 50-61).

Regarding claim 9, Pasternak wherein the first wireless band is a sub-millimeter waveband or a millimeter waveband (see col. 1, lines 61-62 and col. 6, lines 3-9), and the up-channel uses an optical signal (see col. 1, lines 16-21).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pasternak (U.S. Patent No. 5,936,949) in view of Evans (U.S. Patent No. 6,240,556).

Regarding claim 5, Pasternak teaches wherein the first wireless band is a sub-millimeter waveband or a millimeter waveband (see col. 1, lines 61-62 and col. 6, lines 3-9). But Pasternak fails to teach the second wireless band is a 2.4-GHz ISM band.

However, Evans teaches teach the second wireless band is a 2.4-GHz ISM band (see abstract lines 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Pasternak system and by the providing of the teaching of Evans on the ISM band range technique so that allows the use of low cost crystal oscillators in subscriber telecommunications equipment without causing a degradation in bit error rate performance at either bases station or the subscriber terminal (see col. 2, lines 56-59).

Regarding claim 6, Evans teaches wherein the sub-millimeter waveband or the millimeter waveband is one of 26-GHz, 28-GHz, 38-GHz and 42-GHz frequency bands (see abstract lines 1-5).

Regarding claim 7, Pasternak fails to teach wherein the first wireless band is a 5.3-GHz frequency band, and the second wireless band is a 2.4-GHz ISM band.

However, Evans teaches teach the first wireless band is a 5.3-GHz frequency band (wherein range from 0.3-300 GHz), and the second wireless band is a 2.4-GHz ISM band (wherein range from 0.3-300 GHz) (see abstract lines 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Pasternak system and by the providing of the teaching of Evans on the ISM and UNII band range technique so that allows the use of low cost crystal oscillators in subscriber telecommunications equipment without causing a degradation in bit error rate performance at either bases station or the subscriber terminal (see col. 2, lines 56-59).

Regarding claim 8, Pasternak fails to teach wherein the first wireless band is a 60-GHz frequency band, and the second wireless band is a 5-GHz frequency band.

However, Evans teaches teach the first wireless band is a 60-GHz frequency band (wherein range from 0.3-300 GHz), and the second wireless band is a 5-GHz frequency band (wherein range from 0.3-300 GHz) (see abstract lines 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Pasternak system and by the providing of the teaching of Evans on the variable range of the frequency band technique so that allows the use of low cost crystal oscillators in subscriber telecommunications equipment without causing a degradation in bit error rate performance at either bases station or the subscriber terminal (see col. 2, lines 56-59).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pope, Jr. (U.S. Patent No. 6,654,616) discloses wireless area network having flexible backauls for creating backhaul network.

Myers (U.S. Patent No. 6,304,762) discloses point to multipoint communication system with subsectored upstream antennas.

Halminen (U.S. Patent No. 6,477,378) discloses method and apparatus to limit frequency bands used by a low power radio frequency device.

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Trinh whose telephone number is (703) 305-5622. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung, can be reached at (703) 308-7745.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is **(703) 306-0377**.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tan H. Trinh
Art Unit 2684
November 3, 2004

NICK CORSARO
PRIMARY EXAMINER